

REEL SYMBOL RESIZING FOR REEL BASED GAMING MACHINES

TECHNICAL FIELD

[0001] The present invention relates generally to wager based gaming machines, and more specifically to the configuration and design of reels for reel-type slots or gaming machines.

BACKGROUND

[0002] Casinos and other similar venues make up a growing multi-billion dollar gaming industry. As technology in the gaming industry progresses, traditional mechanically driven reel slot machines are steadily being replaced by electronic machines having an LCD video display or the like. Processor-based gaming machines are becoming the norm. One reason for their increased popularity is the nearly endless variety of games that can be implemented using processor-based technology. The processor-based gaming machines permit the operation of more complex games, advance player tracking, improve security, permit wireless communications, and add a host of digital features that are not possible on mechanical-driven gaming machines. The increasing cost of designing, manufacturing, and maintaining complex mechanical gaming machines has also motivated casinos and the gaming industry to abandon these older machines.

[0003] A “mechanical reel” machine generally refers to a slot machine having traditional hardware rotating reels with their associated latches and mechanical parts. A mechanical reel usually has a fixed number of reel symbols disposed about a reel strip attached about the circumference of a wheel. A motor, spring, or other mechanical system physically spins the wheel until it stops at a particular rotational position or “reel stop” and a particular symbol rests in view of a player to indicate an outcome for that reel for a given reel game. In many older machines, the reels and symbols were spun by potential energy, first stored in a spring-loaded mechanism wound and then actuated by the pull of a traditional pull-arm handle. Each reel was stopped at a random position by a mechanical device. The slot machine sensed an outcome, usually along a central payline, by sensing the physical position of each reel. As noted, such traditionally mechanically driven reel slot machines are being replaced by electronic gaming machines that are adapted to simulate such reel based games on a video display.

[0004] In a typical gaming machine, such as a video simulated multi-reel slot machine, a game play is first initiated through a player wager of money or credit, whereupon the gaming machine determines a game outcome, presents the game outcome to the player and then potentially dispenses an award of some type, including a monetary award, depending upon the game outcome. Electronic and microprocessor based gaming machines can include a variety of hardware and software components to provide a wide variety of game types and game playing capabilities, with such hardware and software components being generally well known in the art. A typical electronic gaming machine can include hardware devices and peripheral such as bill validators, coin acceptors, card readers, keypads, buttons, touch screens, coin hoppers, player tracking units and the like. In addition, each gaming machine can have various audio and visual display components that can include, for example, speakers, display panels, belly and top glasses, exterior cabinet artwork, lights,

and top box dioramas, as well as any number of video displays of various types to show game play and other assorted information.

[0005] Whether a reel-type slot machine uses actual mechanical reels or a video based reel simulation, each reel within a plurality of reels or simulated reels typically includes a number of reel stops, at least some of which contain reel symbols. Such reel symbols can include various fruits, bells, bars, gems and/or numbers (such as a “lucky 7”), as well as a wide variety of other symbols, shapes or designs. A typical mechanical gaming machine might have, for example, 17 reel stops per reel, although this number can vary. Such a reel would then tend to have 17 equally sized sections within which reel symbols might be placed. In some gaming machines, however, not every reel stop has a visible and distinctive reel symbol. Rather, such machines have “blanks” or “ghosts” at various reel stops, which blanks or ghosts consist only of empty space. That is, if an exemplary traditional mechanical wheel has 17 reel stops, 10 of these reel stops might have visible reel symbols, while 7 of them might simply have blanks or no visible reel symbol. Such a blank reel stop feature is well known in the field of slot machines, and this feature has been carried over into various video based reel simulations on some processor based slot machines.

[0006] While blank reel stops are well known in the industry, such items are typically unpopular with players, due at least in some part to the tendency of most games utilizing such blanks to have little to no prize payouts for a reel combination that involves a blank reel stop. As such, the use or even appearance of too many of such blank reel stops or “ghosts” on a gaming machine can tend to discourage the play of some machines by some players. Even where a gaming machine is no more likely to award a prize or increase the amount of a prize, the perception for some players can be improved where the mechanical or simulated reels of the machine contain lots visible reel symbols. As such, gaming reels that have fewer or limited blank areas tend to be more visually appealing to many players.

[0007] In addition, there are many instances where a gaming machine operator or manufacturer might want to emphasize one or more reel symbols or entire types or categories of reel symbols. Efforts to emphasize individual reel symbols to date have included the use of specialized backlighting, payline graphical overlays and various highlighting techniques, as well as various other attention drawing features.

[0008] While existing designs and systems for providing and displaying reel stops and reel symbols on slot machines, and particularly reel stops and symbols that include blanks or ghosts, have been adequate in the past, improvements are usually welcomed and encouraged. In light of the foregoing, it is thus desirable to develop improved gaming reels that are even more visually appealing to many players.

SUMMARY

[0009] It is an advantage of the present invention to provide improved gaming reels for reel-type, wager-based gaming machines that contain fewer blank spaces and areas, such that these gaming reels are more appealing to players. This can be accomplished at least in part through the use of gaming reels having visible reel symbols that have been expanded into any blank reel stops that might exist on the gaming reel. It is an additional advantage of the present invention to provide a reel configurator that is adapted to stretch or otherwise resize